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10/531,500	08/22/2006	Jin-Woo Hong	AB-1423 US	8126

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EXAMINER

KIM, HEE-YONG

ART UNIT	PAPER NUMBER
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2621

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/531,500	Applicant(s) HONG ET AL.	
	Examiner HEE-YONG KIM	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/28/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This office action is in reply to Applicant's Response dated October 28, 2009.
2. **Claim 1, 5, 9, 11, 12, 14, and 16** has been amended.
3. **Claim 8** was cancelled.

Response to Arguments

4. Applicant's arguments with respect to claims 1-7, and 9-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-6, 9-10, and 12-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Surve (US patent 6,591,008) in view of Reisman (US 2003/0,229,900), hereafter referenced as Surve and Reisman respectively.

Regarding **claim 9**, Surve discloses Methods and Apparatus for Displaying Pictorial Images to Individuals Who have Impaired Color and/or Spatial Vision. Specifically Surve discloses *A method for adapting visual contents* (Fig.1 Method for

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Displaying a Digital Color to a Visually Impaired Person) *to user's low-vision impairment symptom* (vision impairment, col1, line 9-12), *the method_comprising:*
obtaining visual contents (Image Source, 30 in Figure1) *by a system;*
obtaining, by the system, information (Measured Subject Profile, 110 in Figure 1) *about the user's low-vision impairment symptom* (Impaired color and/or spatial discrimination, column 2, line 58-59) *and adapting* (Color Content Adjustment Section(50), Contrast Content Adjustment Section(60), Spatial Content Adjustment Section(70) in Figure 1), *by the system, the obtained visual contents according to the information; and sending* (RGB from 80 to Display Screen 90), *by the system, the adapted visual contents to a display device* (Display Screen, 90 in Figure 1).

However Surve fails to disclose:

wherein said adapting comprises at least one of operations (A) and (B) which are:

(A1) detecting a first region and a second region in the visual contents, the first region having lower luminance than the second region;

(A2) reducing the luminance of the first region while increasing the sharpness of the second region, wherein increasing the sharpness of the second region comprises:

(A2-1) detecting one or more edges in the second region, each edge being detected as a region of a high frequency; and

(A2-3) enhancing visibility of the one or more edges;

(B): converting at least a portion of the video contents to a non-video modality.

In the similar field of endeavor, Reisman discloses Method and Apparatus for Browsing using Multiple Coordinated Device set. Specifically Reisman discloses (B): *converting at least a portion of the video contents to a non-video modality* (text-to-speech, paragraph 69), for the purpose of personalization of the presentation (paragraph 69).

Therefore, given this teaching, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Surve by specially providing *converting at least a portion of the video contents to a non-video modality*, for the purpose of personalization of the presentation. The Surve method, incorporating the Reisman text-to-speech, has all the features of claim 9.

Regarding **claim 1**, Surve and Reisman discloses everything claimed as applied above (see claim 9). Surve further discloses *further comprising displaying the adapted visual contents* (Adaptation by Adjustment Section 50, 60, and 70, Fig.1) *by the display device* (Display Screen 90, Fig.1).

Regarding **claim 2**, Surve and Reisman disclose everything claimed as applied above (see claim 1). Surve further discloses *wherein the information about the user's low-vision impairment symptom includes at least one of information indicating whether or not left or right eyes of the user are blind, left and right visions of the user, and the kind of the low-vision impairment symptom* (impaired color, spatial discrimination, Column 2, line 58).

Regarding **claim 3**, Surve and Reisman disclose everything claimed as applied above (see claim 1). Surve further discloses *wherein the information about the user's low-vision impairment symptom includes a numerical descriptor (numerical value) that describes a degree of the user's low-vision impairment symptom (gain factor for color content adjustment, contrast adjustment and spatial adjustment, Column 3, line 1- 8).*

Regarding **claim 4**, Surve and Reisman discloses everything claimed as applied above (see claim 1). Surve further discloses *wherein the information about the user's low-vision impairment symptom includes at least one selected from the group consisting of a degree of "loss of fine detail", a degree of "lack of contrast" (contrast parameter, Column 4, line 3-15, and figure 4), a degree of "light sensitivity", a degree of "need of light", a degree of "loss of peripheral vision field", a degree of "loss of central vision field" and a degree of "loss of half field of vision".*

Regarding **claims 5**, Surve discloses *A method for adapting visual contents (Fig.1 Method for Displaying a Digital Color to a Visually Impaired Person) to user's low-vision impairment symptom (Impaired color and/or spatial discrimination, column 2, line 58-59) and presentation preferences (user preference, column 3, line 4), comprising the steps of: receiving visual contents (Image Source, 30 in Figure1); accepting information (Measured Subject Profile, 110 in Figure 1) about the user's low-vision impairment symptom (impaired color, spatial discrimination, Column 2, line 58).and presentation preferences (user preference, column 3, line 4); adapting (Color Content Adjustment Section(50), Contrast Content Adjustment Section(60), Spatial Content Adjustment Section(70) in Figure 1) the received visual*

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contents through a method selected according to the information; and displaying (Display Screen, 90 in Figure 1) the adapted visual contents to the user.

However Surve fails to disclose *describing the information in a standardized description structure and wherein the information about the user's presentation preferences includes user's contents resource priority preference.*

However, Reisman specifically discloses *describing the information in a standardized description structure (a standard structure for setting user preference, paragraph 437) and wherein the information about the user's presentation preferences (user preference, paragraph 437) includes user's contents resource (resources for presentation, paragraph 435) priority preference (preference and priorities, paragraph 435) in order to accommodate adaptation at the client (Reisman: MPEG-21 Digital Item Adaptation, paragraph 161).*

Therefore, given this teaching, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Surve by specially providing *describing the information in a standardized description structure and wherein the information about the user's presentation preferences includes user's contents resource priority preference*, in order to accommodate adaptation at the client. The Surve method, incorporating the Reisman accommodating adaptation according to standard description of user's presentation preference, has all the features of claim 5.

Regarding **claim 6**, Surve and Reisman discloses everything claimed as applied above (see claim 5). *However* Surve fails to discloses *wherein the contents resource priority preference has a modality priority preference and a genre priority preference*.

However, Reisman discloses *genre priority preference* (genres to order the selection by predicted preference rank) (paragraph 688), for the purpose personal preference, and also discloses alternative presentation mode including *modalities* (paragraph 706) such as text-to-speech which would be preferred for vision impaired.

Therefore, given this teaching, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Surve by specially providing *wherein the contents resource priority preference has a modality priority preference and a genre priority preference*, for the purpose of personal preference. The Surve method, incorporating the Reisman accommodating adaptation according to standard description of user's presentation preference, further incorporating the contents resource priority preference having a modality priority preference and a genre priority preference, has all the features of claim 6.

Regarding **claim 10**, Surve and Reisman disclose everything claimed as applied above (see claim 1). Surve further discloses *wherein the information about the user's low-vision impairment symptom includes at least one selected from the group consisting of a degree of "loss of fine detail" (Attribute 150 in Fig.2, Spatial Content), a degree of "lack of contrast" (Attribute 160 in Fig.2, mid-tone Contrast) as disclosed at Column 3, line 19-30*.

Regarding **claim 12**, The Surve method, incorporating the Reisman accommodating adaptation according to standard description of user's presentation preference, as applied to claim 5, discloses the claimed invention *A method for adapting visual contents* (Surve: Fig.1 Method for Displaying a Digital Color to a Visually Impaired Person) *to user's presentation preferences* (Reisman: user preference, paragraph 437) *comprising the steps of:*

receiving visual contents (Surve: Image Source, 30 in Figure1) ;

accepting information about the user's presentation preferences (Reisman: user preference, paragraph 437) *and describing the information in a standardized description structure* (Reisman: a standard structure for setting user preference, paragraph 437)

adapting (Surve: Adjustment Section 50, 60, 70 at Fig.1, Reisman: MPEG-21 Digital Item Adaptation, paragraph 161) *the received visual contents according to the user information having the standardized description structure; and*

displaying the adapted visual contents (Surve: Display Screen, 90 in Figure 1) *to the user;*

wherein the information about user's presentation preferences includes user's contents resource priority preference (Reisman : Resource preference and priorities, paragraph 435).

Regarding **claim 13**, the Surve method, incorporating the Reisman accommodating adaptation according to standard description of user's presentation preference, further incorporating the contents resource priority preference having a

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modality priority preference and a genre priority preference, as applied to claim 6, has the claimed invention *wherein the contents resource priority preference has a modality priority preference (modality priority) and a genre priority preference (genre priority).*

Regarding **claim 14**, the method claim 9 corresponds to a further limiting of the claimed invention of system claim. Therefore, it is rejected for the same reason.

Regarding **claim 15**, Surve and Reisman discloses everything claimed as applied above (see claim 14). Surve further discloses *wherein the information about the user's low-vision impairment symptom includes at least one selected from the group consisting of a degree of "loss of fine detail", a degree of "lack of contrast" (contrast parameter, Column 4, line 3-15, and figure 4) , a degree of "light sensitivity", a degree of "need of light", a degree of "loss of peripheral vision field", a degree of "loss of central vision field" and a degree of "loss of half field of vision".*

Regarding **claim 16**, the claimed invention is a system claim corresponding to the method claim 5. Therefore, it is rejected for the same reason.

Regarding **claim 17**, Surve and Reisman discloses everything claimed as applied above (see claim 14). Surve further discloses *wherein the means for adapting the visual contents (Contrast Adjustment Section 60, Fig.1) carries out at least one technique selected according to the user information from contrast control (gain factors for contrast adjustment, col.3, line 5-7), sharpness control, brightness control, glare reduction, adjustment of image size, presentation priority and modality transformation.*

7. **Claims 7 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Surve (US patent 6,591,008) in view of Reisman and further in view of Cheng (US 6,329,986), hereafter referenced as Cheng.

Regarding **claim 7**, Surve and Reisman disclose everything claimed as applied above (see claim 5). However, Surve and Reisman fail to disclose *wherein the contents resource priority preference has an object priority preference*.

In the analogous field of endeavor, Cheng discloses Priority-Based Virtual Environment. Cheng specifically discloses *object priority* (priorities for avatars and objects, col.2, line 20-27), in order to have enhanced rendering for the higher priority object (col.2, line 23-25).

Therefore, given this teaching, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Surve by specially providing *wherein the contents resource priority preference has an object priority preference*, in order to have enhanced rendering for the higher priority object. The Surve method, incorporating the Reisman accommodating adaptation according to standard description of user's presentation preference, further incorporating the contents resource priority preference having modality priority and genre priority and object priority preferences, further incorporating the Cheng enhancement rendering for the higher priority object, has all the features of claim 7.

Regarding **claim 11**, the Surve method, incorporating the Reisman accommodating adaptation according to standard description of user's presentation preference, further incorporating the contents resource priority preference having a

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modality priority and a genre priority and an object priority preferences, further incorporating the Cheng enhancement rendering for the higher priority object, as applied to claim 7, has the claimed invention *A method for adapting multimedia contents* (Surve: Fig.1 Method for Displaying a Digital Color to a Visually Impaired Person) *to user's presentation preferences* (Surve: user preference, column 3, line 4), *comprising the steps of:*

obtaining multimedia contents (Surve: Image Source, 30 in Figure1) *by a system;*
obtaining, by the system, information about the user's presentation preferences (Surve: user preference, column 3, line 4) *adapting* (Surve: Color Content Adjustment Section(50), Contrast Content Adjustment Section(60), Spatial Content Adjustment Section(70) in Figure 1), *by the system, the received obtained multimedia contents according to the information and sending* (Surve: RGB from 80 to Display Screen 90), *by the system, the adapted multimedia contents to a multimedia contents presentation device* (Surve: Display Screen, 90 in Figure 1) *for presenting the adapted multimedia contents to the user; wherein said adapting* (Cheng: Enhancement for higher Object priority) *comprises allocation of resources to each of different portions* (Cheng: Discriminating Enhancement based on where portion belong to higher object priority) *of the multimedia contents, wherein each portion's allocation corresponds to the user's presentation preferences* (Cheng: object priority preference) *and corresponds to a quality* (Cheng: enhanced rendering for the higher priority object, col.2, line 23-25)) *obtained for the portion in said adapting.*

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEE-YONG KIM whose telephone number is (571)270-3669. The examiner can normally be reached on Monday-Thursday, 8:00am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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February 12, 2010